

**FIRE / EMS COMMITTEE RECOMMENDATIONS
FOR SUBMITTAL TO THE CITY COUNCIL**

AS APPROVED BY THE COMMITTEE ON OCTOBER 23, 2002

Committee members:

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Mayor Manross and City Council Members:

We were privileged to serve you and the citizens of Scottsdale as members of the Fire-EMS Advisory Committee. Given the mission to "offer specific recommendations to the Scottsdale City Council on desired service levels relative to cost," our efforts focused on identifying the current condition of fire and emergency medical services and evaluating possible improvements or enhancements to this level of service, keeping financial considerations at the forefront.

The committee met weekly for a twelve-week period beginning July 17th, 2002. In addition, we toured Scottsdale's training center, Rural/Metro's communications center and Phoenix's communications center. A subcommittee was formed to draft a final report to the Mayor and the City Council.

The Committee invited and received input from each relevant source available to us and obtained documents on rules, regulations and guidelines from authorities on emergency services, both fire and medical. (Exhibit)

We considered the geography of Scottsdale and its demographics, specifically with regard to current population density and distribution as well as projected changes to both, in assessing coverage and the impact of considered changes. The City staff working with us was very helpful in supplying the necessary maps and population information.

The Committee studied many reports made available to us including the Maximus report, which was commissioned by the City to assess fire services. Recent guidelines issued by the National Fire Protection Association (NFPA) were considered to improve citizen and firefighter safety.

Though Scottsdale is a rapidly growing community, loss of life and/or property to fire has been and continues to be low when compared with national and regional statistics. However, suffering with the same issue of population growth and the expanses of new territory, EMS may need some improvement. In an effort to continue the progressive and innovative development of fire and emergency medical service protection in the City of Scottsdale and provide an ever-improving level of service to the citizens, several recommendations are included. All supporting documents reviewed by the Committee are attached.

Respectfully submitted,

City of Scottsdale Fire-EMS Advisory Committee

Issue #1: Strategic Planning**Current Condition:**

The City of Scottsdale services and infrastructure are reviewed within the General Plan every ten years or before if deemed necessary. As stated in the current contracts, the Fire Service is reviewed every three years and the Emergency Medical Service every five years.

Proposal/Recommendation:

We propose that the City of Scottsdale develop a process to create a minimum three year strategic plan for the Fire and Emergency Medical Services. The first year of the Strategic Plan and the operating plan for Fire and EMS should be in sync.

Benefit/Value to Scottsdale:

The growth within the City necessitates a continuing review of the Fire and EMS requirements citywide. The citizens of Scottsdale will benefit from a proactive rather than reactive response to these needs.

Implementation Strategy/Goal:

The Strategic Plan should be reviewed, revised and updated annually.

Financial Impact:

We project a minimal cost to the City since staffing is in place to co-ordinate this effort. There will be long term savings to the City through better planning.

Issue #2: Four Minute Response 90% of the Time Citywide**Current Conditions:**

Due to the residential sprawl in the northern region of the city and the delays in the build out of support infrastructure, the Fire and EMS personnel are handicapped in responding to an emergency in a timely manner. In the southern and central areas with higher population density, fewer structures with sprinklers and significant traffic congestion, the Fire and EMS crews have similar difficulty in responding effectively.

Proposal/Recommendations:

The Committee recommends that the City implement a strategy to position stations and deploy personnel so as to obtain a four-minute response 90% of the time citywide as recommended in the guidelines proposed in NFPA 1710.

In view of the more specific urgency of an EMS call, it is recommended that the City immediately look at creative options to meet the four-minute response 90% of the time in those areas with the greatest emergency medical service deficiency.

Benefit/Value to Scottsdale:

The overall benefit of this recommendation to the City of Scottsdale will be to save the lives of citizens as well as firefighters, reduce the severity of life-threatening injuries and minimize property loss.

With 85% of all emergency calls being specifically for emergency medical service, we believe that the effort to reduce response times will save lives and significantly lessen the City's exposure to the risk of legal action.

Implementation Strategy/Goal:

We recommend an immediate effort through creative management of equipment and facilities to reduce response times on EMS calls. It is proposed that the City have as a goal the four minute response 90% of the time citywide for Fire/EMS. The Committee further recommends an annual evaluation of the progress toward that ultimate goal and public disclosure of the results of these efforts.

Fiscal Impact:

We are unable to predict the improvement in response times that will occur by virtue of the three new Fire/EMS facilities already in progress and scheduled for completion in 2003, specifically Stations 817, 818 and 827, and therefore cannot estimate the extent of cost to further that effort. On the immediate side of EMS response time improvement, the cost is not determinable.

Issue #3: Four-Person Staffing

Current Conditions:

To comply with OSHA's two-in-two-out regulation, the City currently dispatches three firefighter/paramedics or EMTs on an engine and two firefighter/paramedics or EMTs on a support vehicle.

Proposal/Recommendations:

In an effort to move toward the implementation of the NFPA 1710 guidelines, the Committee recommends that the City of Scottsdale move toward four-firefighter staffing on all engines.

Benefit/Value to Scottsdale:

With four firefighters on an engine, the crew can implement fire suppression and safe rescue procedures immediately upon arrival as dictated by OSHA's two-in-two-out rule. This staffing will ensure greater citizen and firefighter safety, effectiveness and efficiency.

Implementation Strategy/Goal:

The Committee recommends beginning implementation in the 2003-2004 fiscal year with full implementation no later than the 2007-2008 fiscal year.

Fiscal Impact/Funding:

As estimated by the Finance Department of the City of Scottsdale, the cost for full implementation will be an additional \$2.4million per year. The committee recommends that four-person staffing be phased in over a five-year period ending in the June 30, 2008 fiscal year. There are no possible cost offsets that we are aware of at this time.

Issue #4: Work toward implementing NFPA 1710 guidelines.**Current Condition:**

The City of Scottsdale follows contract terms and conditions. The goals for emergency response times and for staffing levels are not comparable to the NFPA standard. The current contract does not incorporate the guidelines of NFPA 1710.

Proposal/Recommendation:

The City should strive to meet the recommended guidelines of NFPA 1710 which include

- First-unit response time- 4 minutes/ 90% of the time.
- Initial Full Assignment response time- 8 minutes/ 90% of the time.
- First-unit staffing/arrival- 4 minimum
- Assignment staffing- 14 to 15 personnel.
- Initial attack time
- Annual evaluation
- Quadrennial report

Benefit/Value to Scottsdale:

The benefit to Scottsdale and its citizens is again to save the lives of citizens as well as firefighters, reduce the severity of life-threatening injuries and minimize property loss.

Implementation Strategy/Goal:

The committee recommends an annual evaluation of the progress toward the ultimate goal of implementation of NFPA 1710.

Financial Impact:

The primary costs to implement 1710 guidelines are reflected in issues 2 and 3. Some additional cost to implement 1710 guidelines is anticipated to be minor.

Issue #5: Firefighter Training and Education:**Current Conditions:**

Rural Metro provides under the current contract with the City a minimum of 240 hours of training per year to each full time fire fighter. This standard and the courses that make up this total are to be reviewed and update as necessary by the contract administrator.

Proposal/ Recommendation

The number of training hours does not make an effective training course. The committee recommends, without totally restructuring the training process, a format training based on task, condition and standard.

- Task- what needs to be done
- Condition-What are the conditions of the task is to be performed
- Standard- how is the task measured? Time/distance /weight/score/ NFPA, State of Arizona, Department of Health, etc.

All fire fighters/EMTs shall meet the standard or be required to repeat the training within a specified period of time.

All individual training records, to include training subject, trainer, training date, and measured results should be kept by Rural Metro and forwarded to the contract administrator.

Benefit/ Value to Scottsdale:

A well-trained fire fighting force works as an individual as well as a team. Emergencies are never routine or handled exactly the same way. Training and education provide the skills required to meet the challenges they face. Training strengthens morale and should help reduce turnover.

Implementation:

This proposal should be implemented and incorporated into training immediately. As soon as the required training materials, monitoring and records documentation are in place, a formal launch should be initiated to ensure all personnel gain full appreciation for and understand the value of this training approach.

Financial Impact:

In that existing personnel will perform this administrative upgrade, this cost should be minimal. The increased training time may necessitate employing additional personnel.

Issue #6: Business and Residential Fire Protection Incentives

Current Conditions:

The City of Scottsdale was awarded funds from the Federal Grants Program for Project Impact, a hazard mitigation program. Under this program, businesses which lacked sprinkler protection could apply for assistance to retrofit their structures. A waiver of permit fees and allowing free sprinkler taps into the interior of the building were two features of the program. To our knowledge, residential structures do not qualify under this grant program.

Proposal/Recommendations:

The City of Scottsdale should promote, encourage and provide assistance to businesses to attain maximum retrofitting of existing structures which lack sprinklers. Information should be made available to homeowners without sprinklers outlining the advantages of sprinkler retrofitting in their residences.

The Committee specifically recommends the following:

- Continue, extend and expand the free sprinkler taps and water lines to structures being retrofitted.
- Develop a brochure which explains the advantages, feasibility and the range of costs.
- Advertise through utility bill inserts, city publications and by brochures in libraries and other public buildings.
- Offer aid in the form of advice and explanation of city requirements.

Benefit/Value to Scottsdale:

The greatest advantage to the citizens and businesses in Scottsdale will be the speed with which fires can be suppressed. Without sprinkler protection, 50% of businesses which have had a fire never reopen. Approximately 92% of residential fires in homes with sprinklers were extinguished with the use of just two sprinkler heads. It should be noted that many property insurance companies will provide some allowance for having a fire sprinkler system.

Implementation Strategy/Goal:

The City should offer incentives, advice and information on sprinkler retrofitting requirements through publications included in utility bills and offered in public buildings.

Financial Impact:

Minimal costs would be incurred in the publication and distribution of information.
The cost of incentives is not determinable at this time.

Issue #7: Review Automatic Aid with the City of Phoenix**Current Condition:**

Currently Scottsdale's contracted Fire-EMS provider, Rural/Metro, operates a communications and dispatch center located in Scottsdale. It services Scottsdale, Paradise Valley, Fountain Hills, Carefree, Cave Creek, Anthem and other Maricopa County areas served by Rural/Metro. Scottsdale currently uses Mutual Aid, a shared aid system that provides the ability to call in additional aid from other municipalities when it is determined that current available staffing cannot adequately handle the emergency situation. This aid is not automatically sent but must be requested by phone calls.

Proposal/Recommendation:

The City of Scottsdale might consider entering into an Automatic Aid Agreement with the City of Phoenix and the other municipalities using this system if it is determined that there would be communications, response and cost benefits to Scottsdale. The Communications Center for the City of Phoenix presently oversees the Automatic Aid service agreements for many surrounding Valley communities.

Benefit/Value to Scottsdale:

The Committee does not see sufficient value in the short term based on the cost of complying with contract terms for Automatic Aid. However, future consideration should be given to joining Automatic Aid if there is implementation of several other recommendations in this report. The increased speed for fire and emergency medical responses would be of benefit to the City.

Implementation Strategy/Goal:

The Committee deems participating in Automatic Aid to be infeasible in the near term primarily due to the infrastructure costs as projected by the City of Scottsdale staff. All of the factors required for participation in Automatic Aid are addressed in other proposals in this report. The goal would be to provide the citizens of Scottsdale with the fastest level of communications to insure the quickest emergency response at the most reasonable cost. Once the necessary components for joining Automatic Aid are in place, entering into such an agreement with Phoenix should be fully investigated, discussed and decided by the Council.

Financial Impact:

Automatic Aid is a very significant investment. If the issues of four person staffing and 800MHz communications are implemented, the requirements for participating in Automatic Aid will have been fulfilled. Currently, there are funds budgeted for dispatch that would be reapplied to Automatic Aid.

Issue # 8: Centralize dispatch with Phoenix or Mesa Fire Department**Current Condition:**

Dispatching of Fire and Emergency Medical services for Scottsdale are controlled and handled by Rural/Metro in accordance with the terms of their Fire and EMS contracts. Rural Metro does "centralize" dispatch for Scottsdale and four surrounding towns (Town of Paradise Valley, Cave Creek, Carefree and Fountain Hills).

Proposal/Recommendation:

The Committee proposes that the City review the viability and cost effectiveness of a centralized Fire/EMS dispatch with either of the existing communication facilities in Phoenix or Mesa.

Benefit/Value to Scottsdale:

We believe that the combining of Fire/EMS dispatch with another major city dispatch center may allow for per call cost savings and enhanced safety with a more fluid mutual aid program.

Implementation Strategy/Goal:

Given the association of this issue with the Automatic Aid program and the 800 MHz radio system issue, real consideration needs to be given to the overall viability and cost-effectiveness of the Automatic Aid proposal before any implementation be considered.

Financial Impact:

Depending on the city with which we combine, the terms of any contract and the need to implement Automatic Aid or 800MHz, the cost can be significant. There may be some offset from the current cost of dispatch through Rural/Metro.

Issue #9: Communication & Technology

Current Conditions:

The Fire Department currently utilizes a VHF radio system. This system provides basic 2-way radio communications, but the VHF platform is unique when compared to the surrounding communities future plans. The Scottsdale Police Department is currently using an 800MHz system that is shared with the Maricopa County radio system. Because of the difference in systems, our two emergency service providers (Police & Fire) cannot communicate with each other.

Proposal/Recommendations:

Due to the lack of standards for EMS communications technology, our recommendation would be to evaluate the options available to us at the time that we as a city are prepared to implement. If we consider and study new technology that is on the way to market, we expect performance, price and compatibility with other communities to come in line with what the City of Scottsdale needs.

Benefit/Value to Scottsdale:

Upgrading to this communications technology will allow the Fire Department to effectively communicate with neighboring fire departments and the local Police Department without the need to physically carry two devices. This will result in faster response times for emergency services.

The City also has the potential to realize organizational efficiencies by implementing this or other forthcoming technology throughout the other departments in the City. One system to maintain, with the ability to standardize the platform may result in long term savings.

Implementation Strategy/Goal:

Implementation will take a great deal of time and money, but it is feasible that we could implement in the next 6 to 10 years. Much must be considered in the planning that will take several departments and vendors working together to research and design a successful implementation strategy that will benefit all departments in the City.

Fiscal Impact/Funding:

The 800MHz technology is an expensive conversion to make. This however does not mean that it is not possible to do. When the costs are distributed across all City departments, which it should be due to the across the board benefits, the cost for the Fire Department is greatly reduced.

Craig Clifford of the City Finance Department estimated that a complete system would require a capital investment of between \$8 to \$10 million. Funding options would need to be decided on at the appropriate time by the City Council.

We recommend that the City examine the option of setting aside funds on an annual basis earmarked for exclusively for technology investment.

Issue # 10: Attic Protection**Current Condition:**

The City of Scottsdale's building and fire ordinances have required since 1986 that new residential construction, subject to specific guidelines, have smoke detectors and automatic fire sprinkler protection installed in all living areas within the home at the time of construction. Current ordinances do not require this protection to be installed in the attic areas except in those homes constructed on steep grades that pose access problems for fire equipment.

Proposal/Recommendation:

We propose that the City of Scottsdale provide homebuilders and re-modelers with information of new technology and equipment that will provide greater protection from fires initiated in the attic, on the rooftop or from lightening strikes. It is recommended that the City ask homebuilders to give consideration for increasing the levels of fire detection and /or protection in the attic areas of their new homes. Options include but are not limited to:

- Attic early warning detection system – recommend heat detection versus smoke detection due to maintenance issues.
- Lightening protection – coordinated with building and electrical codes
- Sprinkler systems for open attic spaces

Benefit/Value to Scottsdale:

For a relatively minor cost at the time of construction it will enhance individual citizens safety and reduce potential property loss.

Implementation Strategy/Goal:

City staff should obtain information on the specific technologies and devices available to include in pamphlets for distribution. This should be available for distribution by fiscal year-ended 2004.

Financial Impact:

Individual home builders/ owner bears the cost and receive the benefit of this fire safety enhancement.

Issue #11: Fire Hydrants**Current Conditions:**

Managing almost 8700 fire hydrants in the city is the responsibility of the City's water department. It was brought to the committee's attention that some specific areas of the city lack the required fire hydrants. These areas are in water districts that have been acquired by the City. There was to be a study to identify the areas without hydrants, however, the study was never completed.

Proposal/Recommendation:

Complete the study of the water districts acquired by the city. Where hydrants are required, have them installed.

Benefit/Value to Scottsdale:

Just as the City requires all new construction to be sprinklered, it seems logical that the other line of defense to fight fire is a water supply. Recent fires in the Valley reinforce the importance of having working fire hydrants.

Implementation:

Identify those areas that do not have the required hydrants within the next six months. Budget to have the hydrants installed in the next year's budget.

Financial Impact:

Until the study is complete the exact number of hydrants needed cannot be ascertained and therefore the cost is unknown.